TO: Michael Ball, Director, TC 1700

FROM: Roy King, SPE, AU1742

DATE: March 31, 2004

SUJECT: Request to withdraw from issue for SN 09/966,743

In view of the IDS submitted after allowance, the Examiner has construed a 103 rejection to the allowed claims based on Fujimura et al (EPO No. 0255,939) cited in the IDS filed 10/10/03 (see the attachment).

Therefore, it is requested to withdraw this case from issue.

PROPOSED 103 REJECTION

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 5, 7 to 10, 12 to 14, 16, 18, 20 to 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimura et al. (Fujimura, EPO Document No. 0 255 939, cited in the IDS submitted October 10, 2003) taken in view of The Condensed Chemical Dictionary.

Fujimura teaches a sintered rare earth-transition metal-boron magnet having a composition that overlaps the alloy composition recited in applicants' claims (page 3, lines 45 to 50) containing oxygen in an amount of 10,000 ppm or less (page 6, lines 39). Fujimura also teaches that the alloy composition contains Co and Al as recited in applicants' claims 13 to 16, 18 and 20 to 25 (page 5, line 50 to page 6, line 11). Fujimura teaches that the sintered magnet contains crystal grains having

the R_2 $Fe_{14}B$ structure and a grain boundary phase composed of an R-enriched phase (page 4, lines 21 to 27 and 33 to 39). The Examiner considers that Fujimura's disclosure of an R-enriched phase means that the grain boundary phase contains more rare earth than the $R_2Fe_{14}B$ phase. Fujimura teaches a specific example in which the alloy is crushed and then pulverized to an average particle size of 3 microns (page 7, lines 35 to 37). The particle size taught in this example is encompassed by the particle size of 5 microns or less recited in applicants' claims 12 and 25. Fujimura teaches that the pulverization step is a wet pulverization in a ball mill (page 7, lines 35 to 37). The Examiner considers that applicants' claims 10 and 23 that recite "pulverization in a gas whose oxygen concentration is controlled", but do not recite at what level or how the oxygen concentration is controlled encompass Fujimura's pulverization step. Fujimura teaches that the alloy powder is then charged into a metal mold, aligned in a magnetic field, compacted under pressure and sintered at a temperature of 1040 to 1120^{0}C (page 7, lines 38 to 41). Applicants' claims 9 and 22 recite a two step annealing procedure wherein the compact is held at a temperature in the range of 650 to 1,000 ^{0}C for 10 to 240 minutes. It is the Examiner's position that heating a compact from a temperature of 650 ^{0}C to a temperature of 1000 ^{0}C would take at least 10 minutes and that applicants' claimed 2 step sintering process encompasses heating the compact to the sintering temperature taught by Fujimura. In view of the above discussion, Fujimura is considered to teach a sintered rare earth-transition metal-boron magnet having a composition that overlaps the composition recited in applicants' claims and which is made by a process which overlaps the process recited in applicants' claims.

The condensed Chemical Dictionary teaches that La is a rare earth element while Y is associated with the rare earths and is separated only with great difficulty, that is, for practical reasons Y is considered to be part of the rare earth group of elements.

The claims and Fujimura differ in that Fujimura does not teach the exact same alloy composition; Fujimura does not explicitly teach that the grain boundary phase contains a higher

concentration of Y and optionally La and/or Sc nor does Fujimura teach the diffusion of claims 7 and 20 and the oxide formation of claims 8 and 21.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the alloy proportions taught by Fujimura overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

> "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

Regarding applicants' claim limitation that that the grain boundary phase contains a higher concentration of Y and optionally La and/or Sc, it is the Examiner's position that since, as shown by The Condensed Chemical Dictionary, the definition of rare earth includes La and Y, Fujimura's disclosure of the use of rare earths therefore encompasses Y and La. This fact in combination with Fujimura's disclosure of an R-enriched grain boundary phase means that Fujimura's disclosure encompasses an embodiment wherein the grain boundary phase contains more La and/or Y than the $R_2Fe_{14}B$ phase as recited in applicants' claims.

Regarding claims 7, 8, 20 and 21, it is the Examiner's position that in view of the fact that Fujimura teaches an alloy composition that overlaps the composition recited in the applicants' claims and is processed and sintered in the same manner as applicants' alloy the diffusion of applicants' claims 7 and 20 and the oxide formation of claims 8 and 20 would be expected to occur in Fujimura's process just as it occurs in applicants' process,

> "Where the claimed and prior art products are identical

or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada,15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best,195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01.

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